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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,319	03/10/2004	Michael Paul Edfeldt	4031.002	4266

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EXAMINER

SALDANO, LISA M

ART UNIT PAPER NUMBER

3673

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/797,319

Applicant(s)

EDFELDT, MICHAEL PAUL

Examiner

Lisa M. Saldano

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/6/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

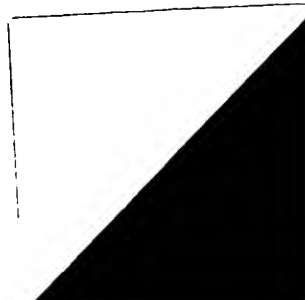
1. The information disclosure statement filed on 7/6/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. More specifically, the foreign patent documents have not been considered because they could not be retrieved.

Claim Objections

2. Claim 8 is objected to because of the following informalities:

Regarding claim 8, line 1, the applicant recites limitations directed to "said step of providing a third protruding part." However, prior claim language from which these limitations depend does not recite a third protruding part. Please correct this and any other incidents of lack of antecedent basis.

Appropriate correction is required.



Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Goepfert et al (3,454,051).

Regarding claims 14-17, Goepfert et al disclose an underwater pipeline 16 with protruding helical ridges or spoilers 19 that function as fins formed from a coating material (see column 2, lines 56-60). Goepfert et al disclose that the pipeline may be coated at spaced intervals or continuously along a section (see Figs.2&4). The helical formation of the spoiler 19 forms a first protruding part of coating material approximately over dead center along a first portion of the pipeline or conduit 16 (as broadly claimed by the applicant of the present invention). The spoiler 19 is securely connected to the pipeline as shown in Fig.3. The helical formation of the spoiler 19 further provides a second protruding part approximately 10 to 30 degrees from dead center of the pipeline on a second portion of the pipeline that is different from the first portion. Actually, the helical formation of the spoiler 19 provides protruding parts at first through infinite portions of the conduits at various angles from a location selected as dead center of the pipeline 16; each portion being a different portion of the pipeline located at various distances from one another, including four inch or greater distances depending on where you measure one part of the

Art Unit: 3673

helical spoiler from another part of the helical spoiler. Goepfert et al disclose that the spoilers reduce the lift coefficient of the pipeline as well provide an increased frictional placement of the pipeline along the ocean floor such that if the pipeline becomes partially or even fully buried due to soft bottom conditions, the spoilers' 19 interaction with the soft ocean bottom tends to hold the pipeline in place (see column 3, lines 18-25).

Regarding claims 18, Goepfert et al discloses a adjoining sections of pipeline joined by weld joints 20 (see column 3, lines 5-10 and Fig.4).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 and 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goepfert et al (3,454,051).

Regarding claims 1-4 and 7-13, Goepfert et al disclose an underwater pipeline 16 with protruding helical ridges or spoilers 19 that function as fins formed from a coating material (see column 2, lines 56-60). Goepfert et al disclose that the pipeline may be coated at spaced intervals

Art Unit: 3673

or continuously along a section (see Figs.2&4). The helical formation of the spoiler 19 forms a first protruding part of coating material approximately over dead center along a first portion of the pipeline or conduit 16 (as broadly claimed by the applicant of the present invention). The spoiler 19 is securely connected to the pipeline as shown in Fig.3. The helical formation of the spoiler 19 further provides a second protruding part approximately 10 to 30 degrees from dead center of the pipeline on a second portion of the pipeline that is different from the first portion. Actually, the helical formation of the spoiler 19 provides protruding parts at first through infinite portions of the conduits at various angles from a location selected as dead center of the pipeline 16; each portion being a different portion of the pipeline located at various distances from one another, including four inch or greater distances depending on where you measure one part of the helical spoiler from another part of the helical spoiler. Goepfert et al disclose that the spoilers reduce the lift coefficient of the pipeline as well provide an increased frictional placement of the pipeline along the ocean floor such that if the pipeline becomes partially or even fully buried due to soft bottom conditions, the spoilers' 19 interaction with the soft ocean bottom tends to hold the pipeline in place (see column 3, lines 18-25).

Regarding claim 11, the weight coating 7 provides a seat and the spoiler 19 provides a fin for the protruding parts of the invention.

Although Goepfert et al fail to explicitly disclose that the invention comprises a method for promoting self-burial of a conduit in the bottom of a water bed or a method for providing stability for a conduit in the bottom of a water bed, the disclosure provided by Goepfert et al clearly discloses that the basic steps and the motivation required to develop a method such as the method claimed by the applicant in the application for the present invention. To reemphasize, as

Art Unit: 3673

stated above, Goepfert et al disclose that the spoilers provide an increased frictional placement of the pipeline along the ocean floor such that if the pipeline becomes partially or even fully buried due to soft bottom conditions, *the spoilers' 19 interaction with the soft ocean bottom tends to hold the pipeline in place.*

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goepfert et al as applied to claim 1 above, and further in view of Hulsbergen (4,648,745).

Goepfert et al discloses the invention as described above.

However, Goepfert et al fails to disclose that the spoiler or fin 19 comprises a means for permitting waterflow therethrough.

Hulsbergen discloses a method and device for burying a conduit in the bottom of a waterbed comprising a fin 2 with an opening 20 that comprises a means for permitting waterflow therethrough (see Fig. 7). Furthermore, Hulsbergen discloses that causing disturbances in the flow of water near a conduit cause erosion of the bottom of a waterbed near a conduit in such a way that the conduit will be buried (see abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the spoilers of Goepfert et al to incorporate means for permitting waterflow through the spoilers or fins, as taught by Hulsbergen, because, as Hulsbergen stated, disturbances in the flow of water near a conduit cause erosion of the bottom of a waterbed near a conduit in such a way that the conduit will be buried. Both Goepfert et al and Hulsbergen provide motivation to keep conduits buried in a water bed. The holes 20 as suggested by Hulsbergen further disturb the flow of water near and conduit, causing disturbances and promoting self-burial of the pipe.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goepfert et al (3,454,051) in view of Sanden Corp (JP-07318275-A).

Goepfert et al disclose an underwater pipeline 16 with protruding helical ridges or spoilers 19 that function as fins formed from a coating material (see column 2, lines 56-60). Goepfert et al disclose that the pipeline may be coated at spaced intervals or continuously along a section (see Figs.2&4). The weight coating 7 provides a seat and the spoiler 19 provides a fin for the protruding parts of the invention. The bottom portion of weight coating 17 comprises a concave portion for receiving a piggy-back pipe (see Fig.3).

However, Goepfert et al fail to disclose that the connection between the fin and the seat comprises a groove for receiving the fin.

Sanden Corp. discloses a pipe and fin engagement configuration wherein a number or seats 5a that may house a pipe or function as a pipe itself comprises a concave portion for receiving a piggy-back pipe. The seat 5a has a plurality of grooves 5a1 that receive fins 5b (see Figs. 2b,3b).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the helical ridges or spoilers of Goepfert et al to incorporate the seat with a groove for receiving a fin, as taught by Sanden Corp because although Goepfert et al disclose that the spoilers are preferably formed integrally with the coating, they disclose that the spoilers may also be subsequently added (see column 2, lines 60-65). In such a case, the configuration of Sanden Corp wherein a groove is located on the seat for subsequent installation of a spoiler or fin is applicable.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fortes (2,674,857) discloses features that are pertinent to the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lms



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